CLAIMS

What is claimed is:

- 1 1. A method for filtering messages comprising:
- determining a first semantic anchor corresponding to a first group of messages
- and a second semantic anchor corresponding to a second group of messages;
- determining a vector corresponding to an incoming message;
- 5 comparing the vector corresponding to the incoming message with at least one of
- 6 the first semantic anchor and the second semantic anchor to obtain a first comparison
- 7 value and a second comparison value; and
- filtering the incoming message based on the first comparison value and the second
- 9 comparison value.
- 1 2. A method as in claim 1, wherein said second group of messages are defined as
- 2 unsolicited messages, and said first group of messages are defined to not be unsolicited
- 3 messages.
- 1 3. A method as in claim 2, wherein the first semantic anchor and the second
- 2 semantic anchor are vectors obtained using a training message corpus comprising
- 3 previously received unsolicited messages and previously received messages defined not
- 4 to be unsolicited messages.

- 1 4. A method as in claim 3, wherein the training message corpus is used to obtain a
- 2 matrix W comprising a word distribution factor.
- 1 5. A method as in claim 4, wherein the matrix W is used to generate the first
- 2 semantic anchor and the second semantic anchor using singular value decomposition.
- 1 6. A method as in claim 1, wherein the first group of messages, the second group of
- 2 messages and the incoming message comprise messages from at least one of email
- 3 messages, email attachments, and computer programs.
- 1 7. A method as in claim 1, wherein determining a vector corresponding to an
- 2 incoming message comprises using singular value decomposition to generate the vector
- 3 corresponding to the incoming message.
- 8. A method as in claim 1, wherein comparing the vector corresponding to the
- 2 incoming message with at least one of the first semantic anchor and the second semantic
- anchor comprises determining an angle between the vector corresponding to the incoming
- 4 message and at least one of the first semantic anchor and the second semantic anchor.
- 9. A method as in claim 1, wherein comparing the vector corresponding to the
- 2 incoming message with at least one of the first semantic anchor and the second semantic
- 3 anchor comprises comparing the length of a normal between the first semantic anchor and

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- 4 the vector corresponding to the incoming message, and the length of a normal between
- 5 the second semantic anchor and the vector corresponding to the incoming message.
- 1 10. A method as in claim 1, wherein comparing the vector corresponding to the
- 2 incoming message with at least one of the first semantic anchor and the second semantic
- anchor to obtain a first comparison value and a second comparison value comprises
- 4 permitting a user to decide whether the incoming message is from the first group of
- 5 messages or from the second group of messages when the first comparison value is
- 6 substantially equal to the second comparison value.
- 1 11. A method as in claim 10, wherein filtering the incoming message based on the
- 2 first comparison value and the second comparison value comprises at least one of
- 3 automatically filtering the incoming messages, and tagging the incoming message.
- 1 12. A method as in claim 11, wherein tagging the incoming message comprises at
- 2 least one of tagging the incoming message with a first tag for a message corresponding
- 3 with the first group of messages, tagging the incoming message with a second tag for a
- 4 message corresponding with the second group of messages, and tagging the incoming
- 5 message with a third tag when the first comparison value is substantially equal to the
- 6 second comparison value.
 - 13. An article of manufacture comprising:

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- a machine-accessible medium including instructions that, when executed by a 2 machine, causes the machine to perform operations comprising 3 determining a first semantic anchor corresponding to a first group of messages 4 and a second semantic anchor corresponding to a second group of messages; 5 determining a vector corresponding to an incoming message; 6 comparing the vector corresponding to the incoming message with at least one of 7 the first semantic anchor and the second semantic anchor to obtain a first comparison 8 value and a second comparison value; and 9 filtering the incoming message based on the first comparison value and the second 10
- 1 14. An article of manufacture as in claim13, wherein said second group of messages 2 are defined as unsolicited messages, and said first group of messages are defined to not be 3 unsolicited messages.
- 1 15. An article of manufacture as in claim14, wherein said instructions for obtaining
- 2 the first semantic anchor and the second semantic anchor include further instructions for
- 3 obtaining vectors using a training message corpus comprising previously received
- 4 unsolicited messages and previously received messages defined not to be unsolicited
- 5 messages.

comparison value.

- 1 16. An article of manufacture as in claim 15, wherein said instructions for obtaining
- vectors using a training message corpus comprises further instructions for obtaining a
- 3 matrix W comprising a word distribution factor.
- 1 17. An article of manufacture as in claim 16, wherein said instructions for obtaining
- 2 matrix W comprises further instructions for generating the first semantic anchor and the
- 3 second semantic anchor using singular value decomposition.
- 1 18. An article of manufacture as in claim 13, wherein said first group of messages,
- said second group of messages and said incoming message comprise messages from at
- 3 least one of email messages, email attachments, and computer programs.
- 1 19. An article of manufacture as in claim 13, wherein said instructions for
- 2 determining a vector corresponding to an incoming message comprises further instruction
- 3 for using singular value decomposition to generate the vector corresponding to the
- 4 incoming message.
- 1 20. An article of manufacture as in claim 13, wherein said instructions for comparing
- 2 the vector corresponding to the incoming message with at least one of the first semantic
- anchor and the second semantic anchor comprises further instructions for determining an
- 4 angle between the vector corresponding to the incoming message and at least one of the
- 5 first semantic anchor and the second semantic anchor.

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- 1 21. An article of manufacture as in claim 13, wherein said instructions for comparing
- 2 the vector corresponding to the incoming message with at least one of the first semantic
- anchor and the second semantic anchor comprises further instructions for comparing the
- length of a normal between the first semantic anchor and the vector corresponding to the
- 5 incoming message, and the length of a normal between the second semantic anchor and
- 6 the vector corresponding to the incoming message.
- 1 22. An article of manufacture as in claim 13, wherein said instructions for comparing
- 2 the vector corresponding to the incoming message with at least one of the first semantic
- anchor and the second semantic anchor to obtain a first comparison value and a second
- 4 comparison value comprises further instructions for permitting a user to decide whether
- 5 the incoming message is from the first group of messages or from the second group of
- 6 messages when the first comparison value is substantially equal to the second comparison
- 7 value.

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- 1 23. An article of manufacture as in claim 22, wherein said instructions for filtering the
- 2 incoming message based on the first comparison value and the second comparison value
- 3 comprises further instructions for at least one of automatically filtering the incoming
- 4 messages, and tagging the incoming message
- 1 24. An article of manufacture as in claim 23, wherein said instructions for tagging the
- 2 incoming message comprises further instructions for at least one of, tagging the incoming
- 3 message with a first tag for a message corresponding with the first group of messages,

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- 4 tagging the incoming message with a second tag for a message corresponding with the
- second group of messages, and tagging the incoming message with a third tag when the
- 6 first comparison value is substantially equal to the second comparison value.
- 1 25. A computer system comprising:
- a bus;
- a data storage device coupled to said bus;
- a processor coupled to said data storage device;
- a singular value decomposition unit communicatively coupled to the processor to
- 6 determine a first semantic anchor corresponding to a first group of messages and a second
- 7 semantic anchor corresponding to a second group of messages;
- an incoming email conversion unit communicatively coupled to the singular value
- 9 decomposition unit to determine a vector corresponding to an incoming message;
- a logic unit communicatively coupled to the incoming email conversion unit and
- the singular value decomposition unit to compare the vector corresponding to the
- incoming message with at least one of the first semantic anchor and the second semantic
- anchor to obtain a first comparison value and a second comparison value, and to filter the
- incoming message based on the first comparison value and the second comparison value.
 - 1 26. A computer system as in claim 25, wherein said second group of messages are
 - 2 defined as unsolicited messages, and said first group of messages are defined to not be
 - 3 unsolicited messages.

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- 1 27. A computer system as in claim 26, wherein the first semantic anchor and the
- 2 second semantic anchor are vectors obtained using a training message corpus comprising
- 3 previously received unsolicited messages and previously received messages defined not
- 4 to be unsolicited messages
- 1 28. A computer system as in claim 27, wherein the training message corpus is used to
- 2 obtain a matrix W comprising a word distribution factor.
- 1 29. A computer system as in claim 28, wherein the matrix W is used to generate the
- 2 first semantic anchor and the second semantic anchor using singular value decomposition.
- 1 30. A computer system as in claim 25, wherein the first group of messages, the
- 2 second group of messages and the incoming message comprise messages from at least
- one of email messages, email attachments, transcribed audio messages, and computer
- 4 programs.
- 1 31. A computer system as in claim 25, wherein an incoming email conversion unit
- 2 communicatively coupled to the singular value decomposition unit to determine a vector
- 3 corresponding to an incoming message comprises the incoming email conversion unit
- 4 using singular value decomposition to generate the vector corresponding to the incoming
- 5 message.

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- 1 32. A computer system as in claim 25, wherein the logic unit communicatively
- 2 coupled to the incoming email conversion unit and the singular value decomposition unit
- 3 to compare the vector corresponding to the incoming message with at least one of the first
- 4 semantic anchor and the second semantic anchor to obtain a first comparison value and a
- second comparison value comprises the logic unit to determine an angle between the
- 6 vector corresponding to the incoming message and at least one of the first semantic
- 7 anchor and the second semantic anchor.
- 1 33. A computer system as in claim 25, wherein the logic unit communicatively
- 2 coupled to the incoming email conversion unit and the singular value decomposition unit
- 3 to compare the vector corresponding to the incoming message with at least one of the first
- 4 semantic anchor and the second semantic anchor to obtain a first comparison value and a
- 5 second comparison value comprises the logic unit to compare the length of a normal
- 6 between the first semantic anchor and the vector corresponding to the incoming message,
- 7 and the length of a normal between the second semantic anchor and the vector
- 8 corresponding to the incoming message.
- 1 34. A computer system as in claim 25, wherein the logic unit communicatively
- 2 coupled to the incoming email conversion unit and the singular value decomposition unit
- 3 to compare the vector corresponding to the incoming message with at least one of the first
- 4 semantic anchor and the second semantic anchor to obtain a first comparison value and a
- 5 second comparison valuecomprises the logic unit to permit a user to decide whether the
- 6 incoming message is from the first group of messages or from the second group of

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- 7 messages when the first comparison value is substantially equal to the second comparison
- 8 value.
- 1 35. A computer system as in claim 34, wherein the logic unit to filter the incoming
- 2 message based on the first comparison value and the second comparison value comprises
- 3 the logic unit to at least one of automatically filter the incoming messages, and to tag the
- 4 incoming message.
- 1 36. A computer system as in claim 35, wherein the logic unit to tag the incoming
- 2 message comprises at least one of the logic unit to tag the incoming message with a first
- 3 tag for a message corresponding with the first group of messages, the logic unit to tag the
- 4 incoming message with a second tag for a message corresponding with the second group
- of messages, and the logic unit to tag the incoming message with a third tag when the
- 6 first comparison value is substantially equal to the second comparison value.
- 1 37. An apparatus comprising:
- 2 means for determining a first semantic anchor corresponding to a first group of
- 3 messages and a second semantic anchor corresponding to a second group of messages;
- 4 means for determining a vector corresponding to an incoming message;
- 5 means for comparing the vector corresponding to the incoming message with at
- 6 least one of the first semantic anchor and the second semantic anchor to obtain a first
- 7 comparison value and a second comparison value; and

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- means for filtering the incoming message based on the first comparison value and
- 9 the second comparison value.
- 1 38. An apparatus as in claim 37, wherein said second group of messages are defined
- 2 as unsolicited messages, and said first group of messages are defined to not be unsolicited
- 3 messages.
- 1 39. An apparatus as in claim 38, wherein the first semantic anchor and the second
- 2 semantic anchor are vectors obtained using a training message corpus comprising
- 3 previously received unsolicited messages and previously received messages defined not
- 4 to be unsolicited messages.
- 1 40. An apparatus as in claim 39, wherein the training message corpus is used to obtain
- 2 a matrix W comprising a word distribution factor.
- 1 41. An apparatus as in claim 40, wherein the matrix W is used to generate the first
- 2 semantic anchor and the second semantic anchor using singular value decomposition.
- 1 42. An apparatus as in claim 37, wherein the first group of messages, the second
- 2 group of messages and the incoming message comprise messages from at least one of
- 3 email messages, email attachments, and computer programs.

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- 1 43. An apparatus as in claim 37, wherein the means for determining a vector
- 2 corresponding to an incoming message comprises means for using singular value
- decomposition to generate the vector corresponding to the incoming message.
- 1 44. An apparatus as in claim 37, wherein the means for comparing the vector
- 2 corresponding to the incoming message with at least one of the first semantic anchor and
- 3 the second semantic anchor comprises means for determining an angle between the vector
- 4 corresponding to the incoming message and at least one of the first semantic anchor and
- 5 the second semantic anchor.
- 1 45. An apparatus as in claim 37, wherein the means for comparing the vector
- 2 corresponding to the incoming message with at least one of the first semantic anchor and
- 3 the second semantic anchor comprises means for comparing the length of a normal
- between the first semantic anchor and the vector corresponding to the incoming message,
- and the length of a normal between the second semantic anchor and the vector
- 6 corresponding to the incoming message.
- 1 46. An apparatus as in claim 37, wherein the means for comparing the vector
- 2 corresponding to the incoming message with at least one of the first semantic anchor and
- the second semantic anchor to obtain a first comparison value and a second comparison
- 4 value comprises means for permitting a user to decide whether the incoming message is
- 5 from the first group of messages or from the second group of messages when the first
- 6 comparison value is substantially equal to the second comparison value.

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- 1 47. An apparatus as in claim 46, wherein the means for filtering the incoming
- 2 message based on the first comparison value and the second comparison value comprises
- 3 means for at least one of automatically filtering the incoming messages, and tagging the
- 4 incoming message.

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- 48. An apparatus as in claim 47, wherein the means for tagging the incoming message
- 2 comprises means for at least one of tagging the incoming message with a first tag for a
- 3 message corresponding with the first group of messages, tagging the incoming message
- 4 with a second tag for a message corresponding with the second group of messages, and
- tagging the incoming message with a third tag when the first comparison value is
- 6 substantially equal to the second comparison value.